5 Apr 1995
WPNSSB

GE2NN-E

GENERATOR, PULSE

1. GENERAL. This procurement requires a pulse generator.

2. CLASSIFICATION. Type II, Class 5, Style E, and Color R in accordance with MIL-T-28800 for shipboard applications.

3. PULSE GENERATION REQUIREMENTS. The minimum requirements below shall apply to both single or double pulse mode operations and shall include positive or negative outputs. All pulse specifications are applicable into a 50 ohm load.

3.1 Pulse amplitude. 0.3V to 100V peak-to-peak.

3.2 Pulse rise and fall times. 17 ns or less.

3.3 Pulse aberrations. 5% maximum for preshoot and overshoot, 6% maximum for droop and top variations.

3.4 Pulse width. 50 ns to 10 ms.

3.4.1 Pulse width jitter. 0.1% maximum of selected width.

3.5 Pulse repetition rate. 10 Hz to 1 MHz.

3.6 Maximum pulse duty cycle. 50% for output amplitudes below 10V, 25% from 10V to 20V, and 10% from 20V to 100V. A duty cycle limit indicator shall be provided.

3.7 Minimum double pulse spacing. 1 us or 25% of the upper limit of the pulse width range setting, whichever is greater.

3.8 Delayed and advanced pulse range. 0 to 10 ms.

3.9 Synchronized output. A trigger output that is synchronized with the generated pulse shall be provided.

3.10 Gated operation. The equipment shall operate normally during the time interval of an input gate signal with an amplitude of at least 500 mv.

3.11 External trigger. The instrument shall be triggerable from an external trigger source as follows:

a. Amplitude: 0.5V to 40V into 1 megohm.

b. Repetition rates: 1 MHz and less.

3.12 Output protection. The equipment shall be provided with protection against a shorted or open output.

3.13 Connectors. BNC(f).

4. GENERAL REQUIREMENTS.

4.1 Power source. MIL-T-28800 nominal power source requirements are invoked. Operation at 400 Hz is not required. Maximum power consumption: 360W.

4.2 Weight. 20 kg (44 lb) maximum.

4.3 Lithium batteries. Per MIL-T-28800, lithium batteries are prohibited without prior authorization. A request for approval for the use of lithium batteries, including those encapsulated in integrated circuits, shall be submitted to the procuring activity at the time of submission of proposals. Approval shall apply only to the specific model proposed.